

11. (Twice Amended) A method of manufacturing a semiconductor device, comprising the steps of:

making a first concavity in a first insulating film of the device;

covering the first concavity with a first barrier layer for preventing metal diffusion;

burying the first concavity covered with the first barrier layer with a wiring metal;

polishing the device to remove a part of the wiring metal residing higher than the upper peripheral level of the first concavity so as to leave a first metal layer in the first concavity;

applying a solution of an organic substance to the device so as to form a protective film of the organic substance on a surface of the first metal layer for preventing metal diffusion;

forming on the surface of the device a second insulating film contacting the first insulating film and the protective film;

making a second concavity simultaneously in the second insulating film and the protective film in a region above the first metal layer;

covering the second concavity with a second barrier layer; and

burying the second concavity covered with the second barrier layer with a second wiring metal layer, the second wiring metal layer contacting the first metal layer.

14. (Twice Amended) A method of manufacturing a semiconductor device, comprising the steps of:

making a first concavity in a first insulating film of the device;

covering the first concavity with a first barrier layer for preventing metal diffusion;

burying the first concavity covered with the first barrier layer with a wiring metal;